

## ABSTRACT

The present invention provides a system with multiple network protocol support.

The system includes: a first memory, the first memory comprising program instructions for processing upper and lower layers of the network protocol; a first processor, where the first processor processes the upper layers of the network protocol for a data packet according to the program instructions in the first memory; and a second processor, where the second processor processes lower layers of the network protocol for the data packet according to the program instructions in the first memory. When the network protocol is changed,

instructions for the new protocol is fetched from a second memory and placed in the first memory. Thus, the hardware of the system need not be redesigned when changing protocols, and the same on-system unit is used to implement each protocol. This increases flexibility, provides cost effectiveness, and increases the reliability of the system.